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Notes upon the "Description of New Plants from Texas, by S. B. Buckley," published in the Proceedings of the Academy of Natural Sciences of Philadelphia, Dec. 1861 and Jan. 1862.

BY ASA GRAY.

Having for many years past taken a prominent part in the study of Texan botany, as made known by the ample collections of Berlandier, Drummond, Wright, Lindheimer, Thurber, and others, and being under the necessity of keeping, as nearly as possible, *au courant* with all publications upon the subject, I was naturally much interested in the appearance of Mr. Buckley's two papers, and not a little surprised at the large number of new species which he had gleaned in such a well-harvested field. Accordingly I applied for specimens of the plants in question; and Mr. Buckley—an early correspondent of Dr. Torrey and myself—promptly and obligingly has placed in my hands, for examination, nearly the whole original materials upon which these new genera and species were characterized. These materials I have examined and compared with my own herbarium, calling in the assistance of Dr. Torrey in those orders in which I am not proficient; and I report the results herewith, with the request that, if favorably received by the Academy, they may be printed in its Proceedings.

I take the species in order, as they stand in Mr. Buckley's papers.

1. Clematis Texensis, Buckl., is *C. Viorna*, var. *coccinea*, Gray, Pl. Wr. 2, p. 7, *C. coccinea*, Engelm. The latter name would have preference; but I see no reason for changing my published opinion, that it is a mere variety of *C. Viorna*, although a striking one. Mr. Buckley's character would have been better had he described the cauline leaves from the specimen in Mr. Durand's herbarium, the "foliolis pusillis, segmentis lanceolatis acutis" being from an imperfectly developed leaf. The leaflets are usually rounded.

2. Clematis Coloradoensis is founded on a very insufficient, thin-leaved, not fully developed specimen of a common Texan form of *C. Pitcheri*, Torr. and Gray. The leaves are plainly *pinnate.*

3. Streptanthus glabrifolius is a large *S. hyacinthoides*, Hook.

4. Streptanthus Brazoensis is *S. petiolaris,* Gray, Pl. Fendl. p. 7, Pl. Lindh. 2, p. 143, Pl. Wr. 2, p. 7, &c.

5. Lepidium Texanum is *L. intermedium*, Gray, Pl. Wr. 2, p. 15.

6. Arenaria (Alsine) monticola is *A. Benthamii*, Fendl., Torr. and Gray, Fl. 1, p. 675.

7. Sida Sabeana is *Melochia pyramidata*, L.!

8. Callirrhöe palmata is what we have always taken for a small form of *C. involucrata*, Gray, i. e. *Malva involucrata*, var. *linearibola*, Torr. and Gray, Fl. Some of the specimens with narrow lobes to the leaves are exactly this var. *lineariloba* (= Berlandier's No. 1815); the others are like Capt. Pope's specimens from the Upper Colorado. It appears to run into the ordinary *C. involucrata.* (I think I have elsewhere stated that *C. macrorhiza* is probably a form of the little-known *C. alcæoides.*)

9. Sidalcea Atacosa is *Malvastrum pedatifidum*, Gray, Pl. Lindh. 2, p. 160, and in the later collections. How, if "the specimens are in fruit only,' were the peculiar characters of the genus *Sidalcea* ascertained?

10. Malvastrum linearifolium is *Sida fasciculata*, Torr. and Gray, a most genuine *Sida.*

11. Elidurandia Texana, n. gen., is *Fugosia Drummondii*, Gray, Pl. Wr. 1, p. 23.

12. Linum (Linopsis) San-Sabeanum is *Lechea Drummondii !*

13. Zanthoxylum hirsutum is the *Z. Carolinianum* var. Pl. Wright, 1, p. 30, No. 81, there discussed by me, and mentioned as *Z. coriaceum*, Wright, *Z. digynum*, Engelm., and *Z. alveolatum*, Shuttleworth; so that, if a distinct species, (as I suppose it is not), it has names enough already. As to the hairiness, upon which Mr. Buckley's name is founded, some flowering specimens of his in Mr. Durand's herbarium demonstrate the slight importance of this character.

14. Ampelopsis heptaphylla is the same as Fendler's No. 108, viz., a small-leaved state of *A. quinquefolia*, only with some of the leaves 6--7-foliolate. It is also in Wright's earlier, undistributed, Texan collection.

15. Vitis monticola is *V. rupestris*, Scheele, (see Pl. Lindh. 2, p. 165, and Pl. Wr. 2, p. 27).

16. Vitis Linsecomii is what I have always referred to *V. Labrusca*. The Louisiana specimen (of Dr. Hale) exactly agrees with specimens from the plant which we formerly cultivated in the Cambridge Botanic Garden as Isabella Grape.

17. Vitis Mustangensis (which is not the Mustang Grape of Florida, &c., vide Chapm. S. Flora, p. 71) is the well known *V. candicans*, Engelmann, (Pl. Wright 2, p. 32, &c.); and *V. coriacea* of Shuttleworth is a thick-leaved form of it, the *V. Caribœa* of Chapman; whether of De Candolle I am still uncertain, but have seen no West Indian specimens which exactly match it. Surely there is some mistake in the statement that "its leaves are neither toothed nor mucronate." It would be more correct to say that they are never entire, and some Texan specimens of Lindheimer, &c., show the glandular mucronations of *C. Caribœa*. Perhaps the reader should be warned that *mustang* is not the name of a town or country, (as the termination *ensis* implies,) but of a wild horse.

18. Psoralea palmata is *P. cyphocalyx*, Gray, Pl. Lindh. 2, p. 450, coll. No. 593.

19. Indigofera cinerea, and 20, I. Texana, are both *I. leptosepala*, Nutt., common in all collections in that region. The specimens afford no evidence that the former has an annual root, and Mr. Buckley does not appear to know the plant except by these specimens.

21. Amorpha Texana is *A. lævigata*, Nutt., var. *pubescens*, Gray, Pl. Wr. 1, p. 49, the same as Wright's and Lindheimer's specimens, the latter from the very same district; also apparently *A. Rœmeriana*, Scheele. The pubescent forms pass into *A. paniculata*, Torr. and Gray.

22. Astragalus Brazöensis is the rare or local *A. reflexus*, Torr. and Gray, Fl., from the district where Drummond discovered it; the legume better developed and more didymous than in Drummond's specimens. Its cells are not always "monospermous," some having ripened two seeds. The keel of the corolla is tipped with purple.

23. Phaca (Astragalus) cretacea is a form of *Astragalus Missouriensis*, Nutt., the flowers of which are "sometimes nearly white," but I suppose not ochroleucous. I have not felt at liberty to make a section of the single nearly full-grown legume which the specimens afford; but a closely similar specimen, in an undistributed collection of Mr. Wright from the same district, shows "the lower suture a little introflexed," just as *A. Missouriensis* is described in the Flora of North America.

24. Baptisia Texana, the color of the corolla of which is not mentioned in the singular specific character, is founded on a branch of either *B. australis* or *leucantha*, the two commonest of species.

25. Cassia Texana is *C. chamæcristoides*, Collad. (*C. cinerea*, Cham. and Schlecht.) enumerated in the Botany of the Mex. Bound. Survey, p. 59. It is No. 2427 and 2429 of Berlandier's collection.

26. Hoopesia arborea, n. gen. and sp. is made up of a flowering specimen of *Cercidium Texanum*, Gray, a fruiting one of *Acacia flexicaulis*, Benth., and a sterile branchlet of *Acacia rigidula*, Benth. The character "semen remiformis" is, like the gender, an oversight. The above are the materials in herb. Durand. Those of the herbarium of the Academy lack the *Acacia rigidula*, and have only broken fragments of the *Cercidium*.

27. Acacia Sabeana is *Leucæna retusa*, Benth., in Pl. Wr. 1, p. 64; a species not easy to mistake.

28. Acacia Durandiana is *A. Greggii*, Gray, Pl. Wright, 1 and 2; Bot. Mex. Bound., &c.

29. Acacia Nueciana is founded on a miserable fragment of *Pithecolobium brevifolium*, Benth., in Pl. Wr., 1, p. 67.

30. Mimosa calcarea is *Strombocarpa* (*Prosopis*, Benth.) *cinerascens*, Gray, Pl. Wr., 1, p. 61; Torr. Bot. Mex. Bound. Surv., p. 60—where it should have mentioned that it is Berlandier's Nos. 2013 and 3143.

31. Desmanthus pedunculatus is *D. velutinus*, Scheele, abundant in all collections.

32. Desmanthus rhombifolius is *D. reticulatus*, Benth., the characters which distinguish the species quite omitted.

33. Cratægus Texana is *C. tomentosa* var. *mollis*, Gray, Man., and *C. subvillosa*, Schrader, not to mention other names.

34. Gaura triangulata is *G. tripetala*, Cav.; Gray, Pl. Wr., 1, p. 72, mixed with some *G. coccinea.*

35. Œnothera Lampasana is just intermediate between Wright's No. 199, *Œ. Greggii* var. *pubescens*, Gray, Pl. Wr., 1, p. 72, and his No. 1076, *Œ. Hartwegi* var. approaching *Fendleri*. So that, instead of a new species, a farther reduction than I had indicated in Pl. Wr., 2, p. 58, &c. is indicated.

36. Œnothera Leona, the glabrous calyx excepted, accords throughout with *Œ. rhombipetala* of the Flora of North America, and I presume with Nuttall's plant, which I have not access to at present. What Mr. Durand takes for *Œ. rhombipetala* (Texas, Dr. Linsecom), also Lindheimer's No. 56 and Berlandier's No. 1842, with the calyx hirsute with very long and spreading hairs, the petals rhombic-ovate, but obtuse and erect pods, I take to be *Œ. bifrons* of Don and Hooker, probably quite distinct, although some forms are questionable.

37. Mentzelia petiolata is a not uncommon form of *M. oligosperma*, Nutt.

38. Saxifraga Texana: no specimen extant.

39. Cymopterus macrorhizus is *C. montanus*, Nutt., and the Texan plant so named in Pl. Fendl., p. 56 and Pl. Wright, 1, p. 79, the latter from Austin, Mr. Buckley's own locality. I had recorded the fact that it agreed very well with Nuttall's original specimens in the Hookerian herbarium.

40. Eurytænia macrophylla, as it appears to me, is *E. Texana* with

the radical leaves, which were before unknown. The flowers, upper leaves, &c. are the same, and the fruit of the proposed new species is unknown.

41. Eupatorium Sabeanum is *E. conyzoides*, Vahl., noticed in Bot. Mex. Bound.

42. Bulbostylis (Brickellia) deltoides is founded on a specimen (with the flowers too undeveloped for Mr. Buckley to make out the generic character) of *Eupatorium Berlandieri*, DC.; also *E. ageratifolium*, var. *Mexicanum*, DC., and var. *Texense*, Gray, Pl. Lindh., &c.—a familiar Texan plant.

43. Kuhnia macrantha is the common Western form of *K. eupatorioides* var. *corymbulosa*, Torr. & Gray; and, if to be distinguished, must take the old name of *K. Maximiliani*, Sinn.

44. Erigeron Brazoense is *E. tenue*, Torr. & Gray, a rather stout and leafy form.

45. Erigeron nudiflorum is *E. divergens*, Torr. & Gray, the form called *E. cinereum* in Pl. Fendl.

46. Machæranthera (Dieteria) grandiflora is *Xanthisma Texanum*, DC. (*Centauridium Drummondii*, Torr. & Gray), which Mr. Buckley had in his own collection. The rays have fallen, but were bright yellow.

47. Aplopappus linearifolius is *Baccharis Texana*, Gray, the *female* plant, showing plainly that it is a *Baccharis*.

48. Parthenium lobatum is the old and familiar *P. hysterophorus*, L.

49. Aphanostephus pilosus is one of the hispid forms of *A. rammosissimus*, DC.

50. Sericocarpus (Galatella) Woodhousii is *Linosyris Wrightii*, Gray, Pl. Wr., and has hardly any thing in common with *Sericocarpus*.

51. Lepachys serratus is *L. peduncularis* var. *picta*, Gray, Pl. Wr., 1, p. 107. The heads are undeveloped in the specimens.

52. Margacola parvula nov. gen. (which, from its position, Mr. Buckley may be thought to have mistaken the affinities of) is *Trichocoronis Wrightii*, Gray, Pl. Fendl., Pl. Wr., &c.

53. Linsecomia glauca, nov. gen.,—the whole published character of which perfectly accords with *Helianthus*,—is the well known *Helianthus ciliaris*, DC.

54. Halea repanda, so far as I can judge from the fragments, accords with *H. Ludoviciana* (of which it has just the pappus), with more of the leaves (and these sharply dentate instead of "repando-denticulatis") petioled, and some of them lobed. The specimens do not show the plant to be an annual, but the contrary.

55. Zexmenia (Lasianthea) hispidula is *Oligogyne Tampicana*, DC.

56. Verbesina Texana is *V. microptera*, DC., a variety of *V. Virginica*.

57. Actinella lanuginosa is *A. scaposa*, Nutt.

58. Heterotheca latifolia is *H. Chrysopsidis*, DC.

59. Gaillardia lobata is *G. picta*, Don., a form with the leaves all sinuate-pinnatifid in one specimen; the upper ones entire in another, just as in Lindheimer's No. 103.

60. Gaillardia scabrosa is *G. amblyodon*, Gay, depauperate specimens, just like Drummond's original ones.

61. Phileozera (Philoxera was intended) multiflora, nov. gen., is *Hymenoxys odorata*, DC., *Actinella odorata*, Gray, Pl. Fendl.

62. Helenium Texanum is just Berlandier's plant, *H. microcephalum*, DC., a species to include also *H. elegans* and *heterophyllum*, DC.

63. Cirsium Texanum is *C. filipendulum*, Engelm., in Torr. & Gray, Fl., there regarded, I think correctly, as a variety of *C. Virginianum*.

64. Specularia (Campanula) Linsecomia and Campanula Coloradoense are *S.* (*Campanula*) *leptocarpa*, Engelm., *Campylocera leptocarpa*, Nutt.

65. Arbutus Texana is the *A. Menziesii* of the Bot. Mex. Bound., p. 108, and, so far as known, differs from the Western plant only in its smaller leaves.

66. Comarostaphylis glauca is the same plant as the foregoing.

67. Bumelia arborea is *B. oblongifolia*, Nutt., the common species of Lindheimer's and other Texan collections, and certainly a form of *B. lanuginosa*. The long hairs of the lower surface of the adult leaves are not scanty.

68. Pentstemon pauciflorus is *Phlox pilosa*, L.! as to the solitary specimen in the Academy's herbarium, and nearly the whole description; while to Durand's herbarium was supplied a bit of the same Phlox and two small specimens of *Pentstemon gracilis*, Nutt. or (which is probably the same thing) a slender form of *P. pubescens*. The character "filamento sterili glabro apice dilatato" is factitious, since there is no sterile filament in the *Phlox*, and that of the real *Pentstemon* (which has been dissected out and displayed in the specimen) is heavily bearded!

69. Pentstemon amplexicaule is *P. Fendleri*, Gray, well figured in the second volume of Pacif. R. Road Reports; and it is also, with scarce a doubt, both *P. acuminatus* and *P. nitidus* of Douglas, &c.

70. Drejera parviflora is the first plant of the collection at all new to me. I believe it to be a congener of *Schaueria parviflora* and *linearifolia*, Torr. Bot. Mex. Bound.

71. Lithospermum prostratum is exactly Berlandier's No. 2311, *L Matamorense*, DC. The nutlets are rather tawny than white, and are better described by De Candolle than by Buckley.

72. Echinospermum pilosum is *E. Redowski*, Lehm., which has been confused with *E. patulum*,—the same as Fendler's No. 634, Wright's 1569, &c.

73. Echinospermum scabrosum is *E. strictum*, Nees, Torr., Bot. Mex. Bound.

73*a*. Eritrichium hispidum is *E. Texanum*, DC.

74. Nemophila hirsuta (founded on decumbent branches) and N. pilosa are both essentially alike, do not differ in the kind of pubescence, and are both the original *N. phacelioides*, Nutt.

75. Phacelia (Cosmanthus) hispida is *Eutoca patuliflora*, Engelm. & Gray, Pl. Lindh., (in herb. Durand)—forms verging to *E. strictiflora*, Engelm. & Gray, l. c. They all run together, and into *Phacelia hirsuta*, Nutt., the proper name.

76. Phlox macrantha, the quite peculiar characters of which are totally overlooked, and the seeds of which are wrongly said to be alate, has long been known in Wright's and Lindheimer's collection (No. 467 of the latter), was named *P. Lindheimeri* by Engelmann, but published by Scheele under the name of *P. Rœmeriana*.

77. Convolvulus (Ipomea) caddoensis is *Ipomea leptophylla*, Torr., long ago well figured in Emory's Gila Report.

78. Solanum (Cryptocarpum) Sabeanum is *S. Balbisii*, Dun., now referred to *S. sisymbriifolium*, Lam., the var. *acutilobum albiflorum* of Dunal, probably also *S. tectum*, Pers., and an introduced plant.

79. Solanum (Lasiocarpa) Linsecumii is *Withania sordida*, Dunal, Torr., in Bot. Mex. Bound., p. 155.

80. Physalis Sabeana is *P. lobata*, Torr.

81. Nicotiana glandulosa is *N. ipomopsiflora*, Dunal; also, *N. trigonophylla*, Dunal, and *N. multiflora*, Nutt. ? Torr. For an elucidation of the species see Proceed. Amer. Acad., 5, p. 166.

82. Erythræa calycosa is *Gyrandra chironoides*, Griseb. and *Erythræa chironioides*, Torr., Bot. Mex. Bound., where the species is cleared up and well figured.

83. Sabbatia formosa is *S. campestris*, Nutt., a familiar species, beautifully figured in Bot. Mag. No. 5015.

84. Forestiera autumnalis differs from *F. ligustrina*, especially the var. *pubescens*, only in having flowered in summer while the leaves are on. Lindheimer collected a similar form at Houston, flowering in July, with full-grown leaves terminating the flowering branches. The specimens of Linsecom and Buckley in Durand's herbarium render it clear that all belong to the common Texan *F. ligustrina*.

84*a*. Fraxinus Americana, pubescens and oblongocarpa (a hybrid name) are all three absolutely the same species,—the differences in the specimens before me being only such as may be found in different trees from the same seed-bed, and are *F. pubescens*, Lam.

85. Fraxinus albicans—as to the tree intended from New England, Pennsylvania, &c.—is what all American botanists have taken for *F. Americana*. Whether it be the ash Linnæus had in view (excluding the syn. of Catesby), viz., the species of Clayton, I am uncertain, although the remark about the fruit, in the second edition of the Species Plantarum, looks to the white ash rather than to *F. pubescens* or *viridis*. But, in adopting his view of the case, Mr. Buckley had no need to give a new specific name to the white ash. There is, first of all, Marshall's most appropriate name,—*F. alba*. The still older name,—*F. Novæ-Angliæ* of Wangenheim, probably belongs here, as also *F. juglandifolia*, Lam. and *F. discolor*, Muhl. But, above all, an undoubted name of the white ash, over half a century old, is *F. epiptera*, of the elder Michaux. Here, the phrase " capsulis obverse lanceolatis, *ima parte teretibus apteris*" is perfectly discriminative. To be sure Mr. Buckley describes his F. albicans, "*samaris* basi *subteretibus*," and his *Americana* and *pubescens* as "basi *teretibus*." Now, our white ash, the *F. epiptera* of Michaux, is well marked by the latter character, the wing not at all decurrent as a margin on the terete body of the fruit. Turning to Mr. Buckley's Texan specimens in the herbarium of the Academy, I find that there are two, both in fruit; one with the larger leaves and fruit is clearly *F. viridis*, var. *Berlandieriana*, Torr., Bot. Mex. Bound. (*F. Berlandieriana*, DC.); the other is, I think, a form of *F. Americana* (i. e. *albicans* of Buckley), of the small-fruited form we are familiar with, but with very small leaves as well as fruits, the latter terete and cylindrical in the manner of the species. Upon studying our ashes several years ago, I ventured the opinion that the fruits of *F. Americana* and *F. viridis* in the Sylva of the younger Michaux were mismatched. This, Mr. Buckley controverts by stating that the descriptions in the letter-press correspond with the figures on the plates. It would be surprising if they did not, both being drawn from the same materials! The case may easily be tested. The green ash is as well marked by its foliage as the common white ash is by its fruit. When any person shall exhibit upon

a green ash such fruit as that represented on Michaux's plate of the species, with an oblong, turgid and terete body, and a wing which commences so abruptly, I shall retract my opinion.

It is a curious statement to be made in the Proceedings of the Philadelphia Academy of Natural Sciences, that Zaccheus Collins was a pupil and correspondent of Linnæus! Also, that Linnæus may have derived from him and Dr. Kuhn his specimens of *Fraxinus Americana*,—upon which Linnæus had published his last words a little before he ever saw, or probably had ever heard of, Dr. Kuhn, and somewhere about the time that Mr. Collins was born!

86. Fraxinus nigrescens. No specimen of this is communicated. A specimen from Louisiana, Hale, which generally accords with the description, is *F. platycarpa*.

87. Fraxinus trialata is a small-leaved and small-fruited form of *F. viridis*, var. *Berlandieriana*, with a triple wing, which is not uncommon in *F. platycarpa* and some other species.

88. Abronia speciosa is one of the forms or species which have been assembled under the name of *A. mellifera*, Dougl., and probably the same as Wright's No. 1710, which had "red-purple flowers," and has been indicated by Dr. Torrey under the still unpublished name of *A. turbinata*,—so that if the same, and really distinct, Mr. Buckley's name will take precedence.

89. Oxybaphus pauciflorus is a common Texan form of *O. nyctagineus*, vide Gray in Bot. Mex. Bound. p. 174.

90. Phyllanthus (Lepidanthus) ellipticus is founded, as appears, upon a specimen of one of Wright's collections, given to the Academy's herbarium by Mr. Durand. If I have myself specimens of it they are mislaid. The species is distinct from any of our recognized ones of the United States, and, so far as I know, a new one. But it is not at all a *Lepidanthus*, is not "diœcious," but monœcious, and its proper characters are not noticed in Mr. Buckley's description. Moreover, his specific name is anticipated.

91. Morus microphylla, a common Texan Mulberry, which certainly does appear distinct from *M. rubra*, and was so regarded by Dr. Engelmann, who distributed Lindheimer's specimens under the name of *M. parvifolia*; but I think it has not been published. Dr. Torrey refers it to *M. rubra*.

92. Yucca longfolia; no specimen supplied.

93. Yucca constricta is *Y. angustifolia*, Nutt. The constriction of the capsule is inconstant. It occurs also in *Y. rupicola*. This and all the following determinations are by Dr. Torrey.

94. Juncus filipendulus is *J. heteranthos*, Nutt., a variety of *J. marginatus*, Rostk.

95. Juncus diffusissimus is *J. debilis*, Gray, Man.

96. Tradescantia speciosa as appears from the character and an unnamed species in herb. Durand, is the well-marked *T. leiandra*, Torr., Bot. Mex. Bound. (misprinted "T. biandra"); but Mr. Buckley has omitted to notice its beardless filaments.

97. Cyperus retroflexus is a fully developed state of *C. uniflorus*, Torr. Mon. Cyp., which was described from starved specimens.

98. Cyperus ruficomus is *C. lutescens*, Torr.

99. Cyperus Heermannii is not identified with any published North American species.

100. Chætocyperus membranaceus is *Eleocharis pygmæa*, Torr., the variety with naked achenia noticed in Nicollet's report.

101. Eleocharis cylindrica is *E. tenuis*, Schultes, a variety with smooth achenia.

102. Eleocharis microformis [a hybrid name] is near *E. intermedia*, Schultes.

103. Eleocharis acutisquamata is the *E. palustris* var. *anachæta*, Torr.

It will be perceived that all the new genera of Mr. Buckley's two papers, and nearly all the new species, are either oversights or mistakes, which might have been avoided. The painful duty I have had to perform was all the more necessary, inasmuch as the true names of the plants could seldom have been ascertained from the published descriptions in those papers. However excellent the author's intentions, we can only regret a publication which entails upon our science a hundred worse than useless synonyms, (a regret which I have reason to believe Mr. Buckley now shares), and we should endeavor to prevent future calamities of the kind. In this regard, understanding that a third paper of the sort, upon a peculiarly difficult order of plants, has been printed in the Academy's Proceedings, but not yet issued, I am confident that my motives will not be misunderstood when I venture to suggest, that the credit both of the Academy and of the author of the paper, no less than the interests of science, would be most subserved by the cancelling of the sheets.

Descriptions of Ten new species of UNIONIDÆ of the United States.

BY ISAAC LEA.

UNIO GRANDIDENS.—Testâ valdè tuberculatâ, obliquâ, ad umbones inflatâ; valvulis crassissimis, anticè crassioribus; natibus valdè tumidis terminalibusque; epidermide fuscâ; dentibus cardinalibus pergrandibus, percrassis corrugatisque; lateralibus crassis, sublongis, obliquis et valdè corrugatis; margaritâ albâ et iridescente.

Hab.—Near Hot Springs, Arkansas, Byrd Powell, M. D,

UNIO SPECIOSUS.—Testâ omninò tuberculatâ, ferè granulatâ, quadrangulari, valdè compressâ, ad latere planulatâ, subæquilaterali, posticè subbiangulatâ et emarginatâ, anticè rotundatâ; valvulis subcrassis, anticè paulisper crassioribus; natibus subelevatis, ad apices acuminatis et elegantissimè perundulatis; epidermide viridi-luteâ, substriatâ, vel obsoletè radiatâ vel eradiatâ, submicanti; dentibus cardinalibus subgrandibus, compressis, obliquis, erectis, striatis, in utroque valvulo duplicibus; lateralibus rectis, sublongis obliquisque; margaritâ argenteâ et iridescente.

Hab.—Colorado River, near Lagrange, Texas, Prof. Forshey; and Leon Co., Texas, Lieut. E. F. Beale.

UNIO LEIBII.—Testâ lævi, quadrâ, subcompressâ, valdè inæquilaterali, posticè emarginatâ, anticè rotundatâ, valvulis subcrassis, anticè crassioribus; natibus subprominentibus, ferè terminalibus; epidermide stramineâ, eradiatâ; dentibus cardinalibus subgrandibus, erectis striatisque; lateralibus curtis, rectis crassisque, in utroque valvulo duplicibus; margaritâ albâ et paulisper iridescente.

Hab.—Erie Co., Michigan, G. B. Leib, M. D.

UNIO GERHARDTII.—Testâ subsulcatâ, ellipticâ, subcompressâ, sublenticulari, inæquilaterali, posticè obtusè angulatâ, anticè rotundâ; valvulis crassiusculis, anticè paulisper crassioribus; natibus subelevatis; epidermide stramineâ, radiis capillaribus; dentibus cardinalibus parviusculis, compressis, in utroque valvulo duplicibus; lateralibus sublongis, lamellatis subcurvisque; margaritâ albâ et valdè iridescente.

Hab.—Chattanooga, Geo., Alexander Gerhardt.